

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L5	6	("5619403"   "5726869"   "5822203"   "6222749"   "6262905"   "6297970").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/19 13:46
L6	2	5 and half near wave	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/19 13:46
L18	9	(US-20060012928-\$).did. or (US-3950657-\$ or US-4560909-\$ or US-3603817-\$ or US-4777380-\$ or US-6577517-\$ or US-6137700-\$ or US-5629607-\$).did. or (WO-2004015865-\$).did.	US-PGPUB; USPAT; EPO	OR	ON	2007/11/19 14:12
L19	1	18 and multiplexer	US-PGPUB; USPAT; EPO	OR	ON	2007/11/19 14:16
L20	105	(ac with dc with converter) same multiplexer	USPAT	OR	ON	2007/11/19 14:17
L21	2	20 and half adj wave	USPAT	OR	ON	2007/11/19 14:17
S1	747	307/38.ccls.	US-PGPUB; USPAT	OR	ON	2007/08/13 10:54
S2	3895749	@ad<"20020725"	US-PGPUB; USPAT	OR	ON	2007/08/13 10:55
S3	503	S1 and S2	US-PGPUB; USPAT	OR	ON	2007/08/13 10:55
S4	1	S3 and phase adj detect\$3	US-PGPUB; USPAT	OR	ON	2007/08/13 10:55
S5	0	helmut-theiler.in.	US-PGPUB; USPAT	OR	ON	2007/08/13 10:56
S6	5	((HELMUT) near2 (THEILER)).INV.	US-PGPUB; USPAT	OR	ON	2007/08/13 10:58
S7	3	((("4668908") or ("4777379") or ("4777380")).PN.	US-PGPUB; USPAT	OR	OFF	2007/08/13 10:58
S8	28	("3034062"   "3076902"   "3103602"   "3110810"   "3333104"   "3449574"   "3569818"   "3819980"   "3894235"   "3936719"   "4221968"   "4251847"   "4309612"   "4313055"   "4322817"   "4331876"   "4355884"   "4378501"   "4520494"   "4532644"   "4587606").PN. OR ("4777380"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/13 11:25
S9	17	rectifier and (ac! near phase near detect\$3) and switch	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/22 10:44

## EAST Search History

S10	15	S9 and S2	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/13 11:25
S11	0	(ac! near phase near detect\$3) and (dc! adj loads!)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 11:57
S12	1	(ac! near phase near detect\$3) and (dc! with loads!)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 11:33
S13	11	(ac! near phase near detect\$3) and pwm	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 11:33
S14	7	S2 and S13	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 11:33
S15	99	(ac! near phase near detect\$3)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:34
S16	60660	phase near detect\$3	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 11:58
S17	370	S16 same (switch near control)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 11:58
S18	47	S17 and loads!	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 11:58
S19	29	S18 and S2	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:30
S20	12953	humidifier	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:30
S21	244	S20 with light	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:30
S22	3895749	@ad<"20020725"	US-PGPUB; USPAT	OR	ON	2007/08/13 13:30
S23	123	S21 and S22	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:31
S24	5	S23 and rectifier and control and switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:31
S25	3939	(phase near detect\$3) same (signal with switch)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:37

## EAST Search History

S26	2492	S25 and S22	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:37
S27	103	S26 and phase near (positive negative)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:58
S28	0	S27 and (switch with loads!)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:38
S29	189	rectifier same( phase near (positive negative))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:58
S30	189	rectifier same (phase near (positive negative))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:58
S31	145	S30 and S22	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:58
S32	143	S31 not S27	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 13:59
S33	26	S32 and phase near detect\$3	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 14:28
S34	1340	rectifier same (zero adj cross\$3)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 14:29
S35	7	rectifier same ((zero adj cross\$3) with detect with switch)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 14:29
S36	88	rectifier same ((zero adj cross\$3) with detect\$3 with switch)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 14:29
S37	66	S36 and S22	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/13 14:29
S38	12	("4268899"   "4837672"   "4937731"   "5088019"   "5162984"   "5287263"   "5572415"   "5661348").PN. OR ("6137700").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 11:32
S39	467	(phase near detect\$3) and (load near control)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 11:34
S40	131	S39 and (phase with (positive negative))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 11:35

## EAST Search History

S42	3896121	@ad<"20020725"	US-PGPUB; USPAT	OR	ON	2007/08/14 11:35
S45	102	S40 and S42	US-PGPUB; USPAT	OR	ON	2007/08/14 11:35
S46	75	S45 and switch	US-PGPUB; USPAT	OR	ON	2007/08/14 11:35
S47	7	S45 and switch.ab.	US-PGPUB; USPAT	OR	ON	2007/08/14 11:36
S48	35	S45 and rectifier	US-PGPUB; USPAT	OR	ON	2007/08/14 11:38
S49	1	S39 and S41 and (dc! with load)	US-PGPUB; USPAT	OR	ON	2007/08/14 11:39
S50	107	S39 and ((rising falling) near edge)	US-PGPUB; USPAT	OR	ON	2007/08/14 11:39
S51	6	S50 and (rectifier same switch)	US-PGPUB; USPAT	OR	ON	2007/08/14 11:40
S52	35	S50 and (phase with switch)	US-PGPUB; USPAT	OR	ON	2007/08/14 12:32
S53	126	rectifier same (negative adj (pulse phas)) same switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:33
S54	116	S53 and S42	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:35
S55	5470	switch with control with rectifier	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:35
S56	1298	S55 and phase with switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:36
S57	485	S56 and phase with (detect\$3 sens\$3)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:36
S58	360	S57 and S42	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:36
S59	77	S58 and (ac! near (source input supply)) and (dc! near (output load))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:51
S60	1456	(ac?dc adj converter).ab.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:52
S61	29	S60 and S42 and (phase with switch)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:57

## EAST Search History

S62	14483	full near2 rectifier	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:58
S63	2471	(full near2 rectifier).ab.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:58
S64	156	S63 and phase with switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 12:58
S65	63	S63 and phase with control with switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:00
S66	4640	ac with ((half adj cycles) half?cycles)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:01
S67	332	S66 and S42 and phase with control with switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:01
S68	332	S66 and S42 and (phase with control with switch)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:06
S69	98	S68 and (dc! near (loads outputs))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:06

## EAST Search History

S70	88	("3142781"   "3193728"   "3200327"   "3243653"   "3256463"   "3274484"   "3397344"   "3667030"   "3691404"   "3706913"   "3719858"   "3821601"   "3845351"   "3879652"   "3898516"   "3924120"   "3943397"   "3990000"   "4016496"   "4057751"   "4080548"   "4086526"   "4219761"   "4241295"   "4287468"   "4325021"   "4331914"   "4355309"   "4389598"   "4392187"   "4417183"   "4423478"   "4438356"   "4447765"   "4450384"   "4461990"   "4484190"   "4500802"   "4504779"   "4528494"   "4540893"   "4547828"   "4567425"   "4598345"   "4617508"   "4633161"   "4649302"   "4688154"   "4688161"   "4689547"   "4704656"   "4705960"   "4705962"   "4763220"   "4823069"   "4931916"   "4949020"   "4972125"   "4975629"   "4977484"   "4984143"   "4987348"   "5004969"   "5005211"   "5015921"   "5239255"   "5268631").PN. OR ("5629607").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 13:24
S71	70	S70 and @ad<"20020725"	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 13:26
S72	2384	(phase adj locked adj loop).ti.	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 13:26
S73	4181	(phase adj locked adj loop).ti.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:26
S74	3896121	@ad<"20020725"	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 13:26
S75	1601	S73 and S74	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 13:26
S76	441	S75 and (phase with switch)	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 13:27
S77	222	S75 and (phase with (detect\$3 sens\$3) with switch)	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 13:31

## EAST Search History

S78	3	S77 and rectifier	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 13:28
S79	0	S77 and (ac?dc? adj converter)	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 13:28
S80	0	S77 and (ac?dc adj converter)	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/14 13:28
S81	210	open adj bridge	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:50
S82	6	open adj bridge adj rectifier	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:32
S83	160	S81 and S74	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:50
S84	10	S83 and (phase with switch)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:32
S85	20	S83 and rectifier	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:52
S86	134	S83 not (S84 S85)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:53
S87	111	S86 not fibre	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:53
S88	0	S87 and dc! adj (output load)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:53
S89	1	S87 and ac! adj (input source supply power)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/14 13:54
S90	210	open adj bridge	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/21 13:25
S91	6	open adj bridge adj rectifier	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/21 13:25
S92	9	(open adj bridge) with rectifier	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/21 13:28

## EAST Search History

S93	26	(open adj bridge) with circuit	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/21 13:28
S94	15138751	@ad<"20050124"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/21 13:28
S96	22	S93 and S94	US-PGPUB; USPAT	OR	ON	2007/08/21 14:24
S97	2001	transformer with tap same rectifier	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/21 14:25
S98	290	S97 and phase with switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/21 14:25
S99	281	S98 and S94	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/21 14:25
S10 0	27	S97 and phase with (detect\$3 sens\$3) with switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/21 14:25
S10 1	25	S100 and S94	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/21 14:26
S10 2	8	("5619403"   "5726869"   "5822203"   "6222749"   "6262905"   "6297970").PN. OR ("6577517"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/21 15:05
S10 3	646	rectifier and ((phase near detect\$3) same (transistor switch))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:44
S10 5	496	S103 and S104	US-PGPUB; USPAT	OR	ON	2007/08/22 10:45
S10 6	77	S105 and half adj wave	US-PGPUB; USPAT	OR	ON	2007/08/22 10:49
S10 7	198	open adj bridge	US-PGPUB; USPAT	OR	ON	2007/08/22 10:49
S10 8	210	open adj bridge	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:50
S10 9	12736931	@ad<"20020725"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:49
S11 0	170	S108 and S109	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:49



## EAST Search History

S11 1	10	S110 and phase with switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:50
S11 2	185	open! adj bridge	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:50
S11 3	12	S112 and phase with switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:50
S11 4	3826	H03K017/00	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:51
S11 5	1	S114 and phase with swtich	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:51
S11 6	121	S114 and phase with switch	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:52
S11 7	4	S116 and open! adj (bridge circuit rectifier)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:52
S11 8	48	S114 and (half adj wave)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 10:53
S11 9	26	("3452214"   "3691404"   "3735241"   "3764890").PN. OR ("3950657").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/22 11:06
S12 0	1	("4560909").PN.	US-PGPUB; USPAT	OR	OFF	2007/08/22 11:10
S12 1	34	S114 and half adj (cycle wave) and loads!	US-PGPUB; USPAT	OR	ON	2007/08/22 11:10
S12 2	35	S114 and half adj (cycle wave) and (loads! (second adj load))	US-PGPUB; USPAT	OR	ON	2007/08/22 11:10
S12 3	37	S114 and half adj (cycle wave) and (loads! (second adj load))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 11:11
S12 4	15	("3176150"   "3337741"   "3484623"   "3517217").PN. OR ("3603817").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/22 11:29
S12 5	4	(negative adj (pulse wave)) with ((another second different next) adj load)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 11:29

## EAST Search History

S12 6	28	("3034062"   "3076902"   "3103602"   "3110810"   "3333104"   "3449574"   "3569818"   "3819980"   "3894235"   "3936719"   "4221968"   "4251847"   "4309612"   "4313055"   "4322817"   "4331876"   "4355884"   "4378501"   "4520494"   "4532644"   "4587606").PN. OR ("4777380"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/22 11:32
S12 7	10318	H02M003/28	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 11:32
S12 8	8788	S127 and S109	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 11:32
S12 9	15	S128 and ((half adj (phase wave)) with (load switch))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 11:35
S13 0	95	S128 and (half adj (bridge circuit rectifier))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 11:44
S13 1	93	S130 not S129	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 11:36
S13 2	82	S128 and (half adj (bridge circuit rectifier)).ab.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 11:58
S13 3	0	S132 and (loads! (second adj load))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 11:44
S13 4	3	S132 and feedback	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/08/22 11:58